

# VIBRATION SUPPRESSING DEVICE FOR AIR HAMMER

## ABSTRACT OF THE DISCLOSURE

An air hammer includes an air hammering mechanism and a vibration suppressing device to absorb the vibration transmitted from the air hammering mechanism. The vibration suppressing device includes a cylinder forming a front channel and a rear channel in communication with each other. First and second air passageways are defined in the cylinder and in communication with the front and rear channels respectively. A valve is movably received in the front channel. The valve defines a bore and third air passageways selectively alignable with the first air passageways. A piston is movably received in the rear channel and forms a projection. A jacket surrounds the cylinder to form therebetween an air chamber that communicates the second air passageways. The jacket has a closed end defining a hole into which the projection is selectively received to block the hole. When the air hammering mechanism is driven by compressed air, the compressed air is allowed to simultaneously flow into the valve via the first and third air passageways to move the piston in such a way to have the projection of the piston received into the hole and thus closing the hole for sealing the air chamber. The compressed air is allowed to further flow into the air chamber via the second air passageways. The compressibility of the air inside the sealed air chamber functions to absorb vibration transmitted from the air hammering mechanism.